*by Robert C. Wasson* ☆

# Investment in Production Equipment

## 1929–52

DEVELOPMENT of a new body of postwar data makes possible an analysis of the long-term growth and cyclical variability in private purchases of producers' durable equipment by product groups for the entire 1929–52 period. The analysis is in terms not only of current dollar values, but also of volumes (constant 1947 dollar values) and the price indexes, which are shown by product groups. Some of the principal conclusions are as follows:

1. Postwar expansion in private purchases of producers' equipment has been very large. While all product groups participated, machinery increased most.

2. Both prices and quantities of equipment purchases were substantially higher in 1952 than in 1929, and there has been some tendency for equipment product groups with the least price increase to show the greatest volume increase.

3. Equipment product groups displayed great cyclical variability in the volume of purchases, with expensive long-life types of equipment having the greatest fluctuations. As among product groups, there seemed to be no definite relationship during cycles between price and volume movements.

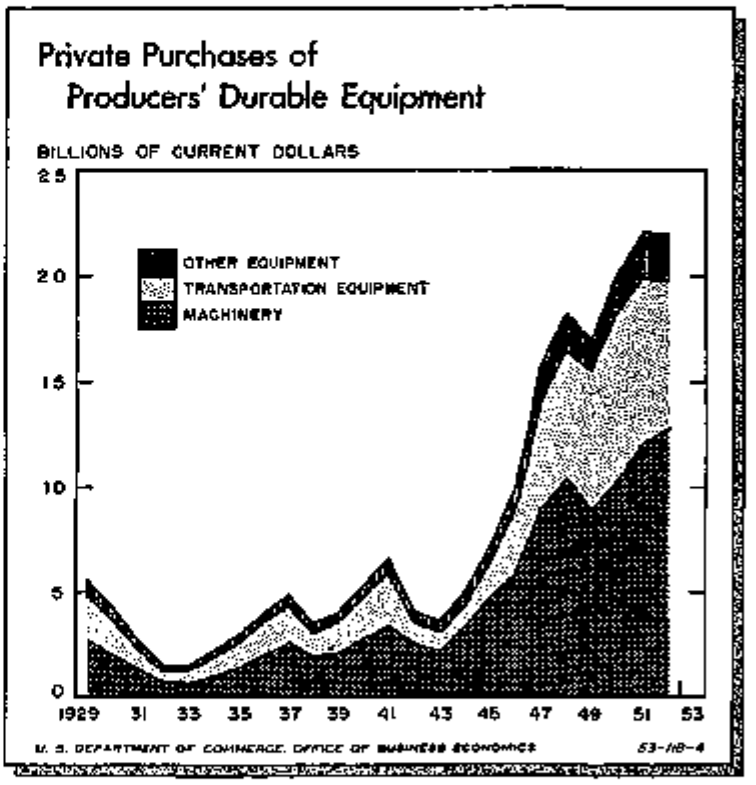
4. Judged on the basis of historical trends, producers' equipment purchases in recent years have been relatively high. Capital formation in the form of nonresidential construction, the other major component of business fixed capital, appears low when judged by the same standards.

5. Cyclical variations in the volume of equipment purchases and nonresidential construction generally have been substantially greater than those in consumer goods and services. In contrast, cyclical variations in the prices of producers' equipment have been less than those in the prices of consumer goods and services.

In connection with the new volume and price data it should be noted that they can take account of long-run improvements in quality only to a limited extent. Consequently, they show increases in volume that are somewhat smaller and increases in prices that are somewhat larger than would appear if full allowance for the quality factor could be made. In the short run, the price indexes probably show smaller variation than do effective prices, because full account cannot be taken of changes in discounts, premiums, and other conditions and terms of sale. Conversely, short-run changes in volume, which are derived by dividing values by price indexes, are somewhat larger than actual volume changes. Some of the principal conclusions in the article should be interpreted in the light of these limitations of the data.

### *Variations in purchases*

The long-term growth and the sharp fluctuations in the current-dollar value of equipment purchases since 1929 are shown in the accompanying chart and in the top section of table 1. Private purchases of equipment were down very substantially from the 1929 peak in the early thirties. The incomplete recovery after 1933 was sharply but briefly interrupted by the recession of 1938. The subsequent revival was followed in 1941 by a shift from private purchases of equipment to government procurement under the military program. The Federal Government made large purchases of equipment for use in producing munitions and related products in both privately and publicly operated plants. The Federal Government also purchased substantial amounts of other equipment such as motor vehicles, construction machinery, and communication equipment for use by the combat forces.




Government purchases of durable equipment are not shown in the present series, which is confined to private purchases of new producers' durable equipment. The decline in private purchases during the years of the Second World War reached a low point in 1943.

In the postwar period, there was a marked upsurge in private equipment purchases, interrupted only by a slight decline in 1949. Even that year was higher than any year prior to 1948, and it was followed by increases which brought purchases to $22 billion in 1951 and 1952. Preliminary indications suggest that equipment purchases in 1953 may be somewhat above that rate.

In terms of current dollars, producers' durable equipment purchases during the past 5 years have ranged from 3 to 4 times those of 1929. In terms of physical volume, purchases have averaged about twice as large.

NOTE.—MR. WASSON IS A MEMBER OF THE NATIONAL INCOME DIVISION. MR. JOHN W. KENDRICK OF THE NATIONAL ECONOMICS DIVISION PREPARED THE CONSTANT-DOLLAR ESTIMATES OF PRODUCERS' DURABLE EQUIPMENT AND THE PRICE INDEXES THAT ARE PRESENTED IN TABLES 6 AND 7 OF THIS ARTICLE.

Equipment investment in this period served not only to meet replacement demands, including those deferred during the war and the prewar depression, but also to expand greatly the existing stock of equipment. As estimated in the June issue of the SURVEY, gross physical stocks of privately owned equipment increased about four-fifths between the end of 1941 and the end of 1952. The great bulk of this expansion occurred after 1945.

It is probable that equipment purchases have been stimulated not only by backlogs and new defense needs but also by the important technological advances which occurred during the period. These advances have made it possible to lower operating costs and thus increase the profitability of operating with new equipment as compared with prewar equipment. Technological advances have also led to the development and introduction of equipment designed to provide new types of products.

## *Shifts in composition*

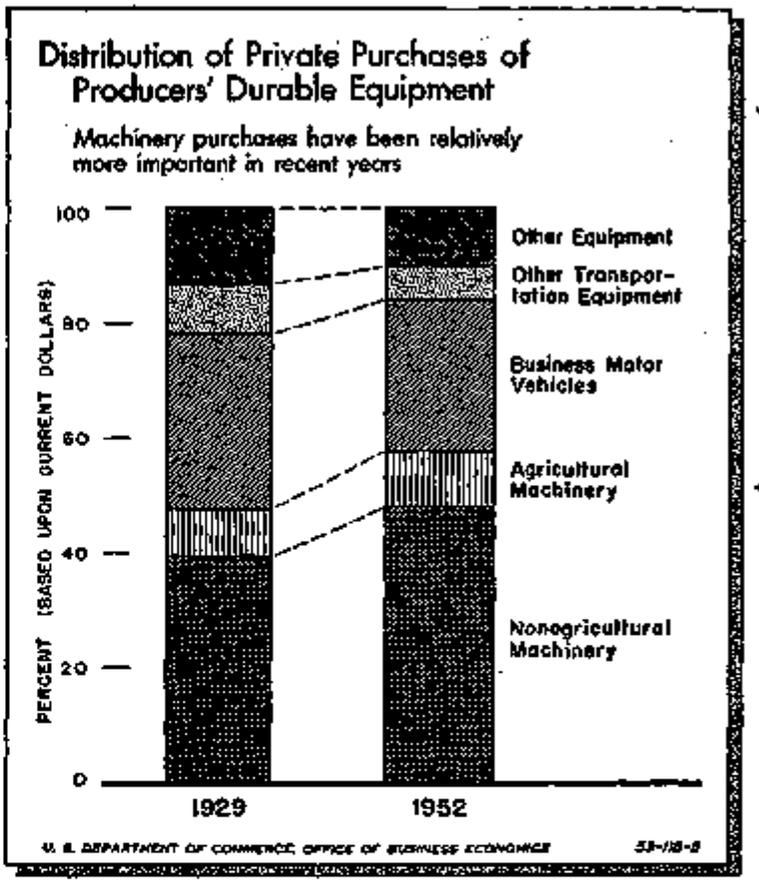
Purchases of all major groups of equipment were considerably larger in 1952 than in 1929, but by varying proportions. As can be seen from the chart and from table 1, a noteworthy change has been the increased relative importance of machinery and the relative decline of transportation equipment. Machinery purchases accounted for 58 percent of the total in 1952 as compared with 48 percent in 1929. Nonagricultural machinery, which rose from about 40 to 48 percent, was responsible for most of this shift. Corresponding figures for agricultural machinery—8 and 10 percent—indicate an increase of similar proportions. Among the nonagricultural machinery groups showing the largest relative increases were construction machinery, electrical machinery, mining and oilfield machinery, and metalworking machinery.

In contrast, the share of transportation equipment declined from 39 percent in 1929 to 32 percent in 1952, even though the group was up substantially in absolute terms. Transportation equipment, other than motor vehicles, consisting mainly of railroad equipment and ships but including also relatively small amounts of aircraft, fell from about 9 percent of the total in 1929 to 6 percent of the total in 1952. Railroad equipment and ships each declined in relative importance.

Business motor vehicles accounted for about 30 percent of the producers' durable total in 1929, but 26 percent in 1952, the relative decline occurring primarily in passenger automobiles. This decrease in the ratio of purchases of business motor vehicles to total equipment purchases has not held for all the postwar years. In 1949 and 1950 business motor vehicles formed a larger portion of the total than in 1929, and this will probably be the case for 1953 also. The decrease in expenditures for business motor vehicles in 1951 and 1952 may have been largely a consequence of supply limitations.

Purchases other than machinery and transportation equipment were also higher in 1952 than 1929, but accounted for only about 10 percent of the total as compared with 13 percent in the earlier year. In this group, business furniture and fixtures, fabricated metal products, and miscellaneous equipment all declined in relative importance. Only instruments showed a relative increase.

If the 1929 base of comparison is broadened by taking into account the information that is available concerning expenditure patterns in years immediately preceding 1929, the general impression of the currently greater importance of machinery purchases persists. The diminished importance of transportation equipment other than business motor vehicles continues to stand out clearly, and the relative downward trend of equipment other than machinery and transportation equipment is further underscored. With respect to the share of automobiles, significantly different results are obtained depending on the year or years that are used as a basis for comparison.




While the foregoing examination was in terms of current dollars, the conclusions reached apply to the constant dollar distributions as well. Divergence in relative price movements of the component groups, although substantial, has not been sufficient to call for a qualification of the broad trends discussed.

## *Volume and prices, 1929–52*

Changes in the physical volume and average price of the major types of equipment from 1929 to 1952 are compared in the accompanying chart.[1] In the interpretation of these figures, it should be noted that quality improvement could be taken into account only to a limited extent. Volume increases would be larger and price increases smaller if it had been possible to take further account of the quality factor. Bars representing the percentage change in prices for the twenty equipment groups are arrayed from the smallest at the top to the largest at the bottom. Bars representing percentage changes in quantity are adjacent to the price-change bars for the same group. It will be noted that the five groups with the smallest price change have the largest percentage change in quantity. The relationship between price change and quantity change for the remaining fifteen groups, however, is quite erratic.

The basic causes giving rise to the inverse long-run associa-

1. For about one-fourth of the product groups and the total, the indexes used as a measure of price movements are implicit deflators. In each of these, changes in the relative importance of the group components during the period have comparatively little effect on the magnitude of the price or volume changes discussed later in the text.

tion of quantities and prices are not known.[2] On the supply side, technological progress may result simultaneously in cost decreases and volume production. Alternatively, shifts in demand may expand the market and consequently reduce the relative cost of products that gain in favor.

## *Cyclical sensitivity of product groups*

Purchases of producers' durable equipment are highly sensitive in the business cycle. This sensitivity is characteristic of each of the twenty product groups of equipment, but some are much more sensitive than others. This can be seen from table 2, which presents data for the years 1929–37, covering the only substantial cycle of the 1929–52 period. The table shows the decline from 1929 to the low point and the advance from the low point to the peak at the end of the cycle as percentages of the corresponding 1929 figure. For example, a 1929 high of 100 followed by a low of 40 in 1932 and a high of 90 in 1937 would be recorded as a decline of 60 percent and an advance of 50 percent of the 1929 high. The low point was 1932 or 1933, the year selected for any given product group being the one in which the constant dollar value for that group was the smaller. The peak for most groups and the total was 1937; but for three groups the peak for the constant dollar value was 1936 (mining machinery and trucks) or 1938 (ships); in each group the peak year of recovery was chosen.

In using the data several limitations should be kept in mind. In the first place, it is probable that the price quotations used in computing the price indexes somewhat understate the actual cyclical variability of prices, because they cannot take into full account variations in discounts, premiums, and other terms and conditions of sale which are factors in determining the effective price of the commodity. Conversely, the volume changes shown in the table, which are calculated by dividing values by price indexes, are probably somewhat smaller than the volume changes that actually occurred.

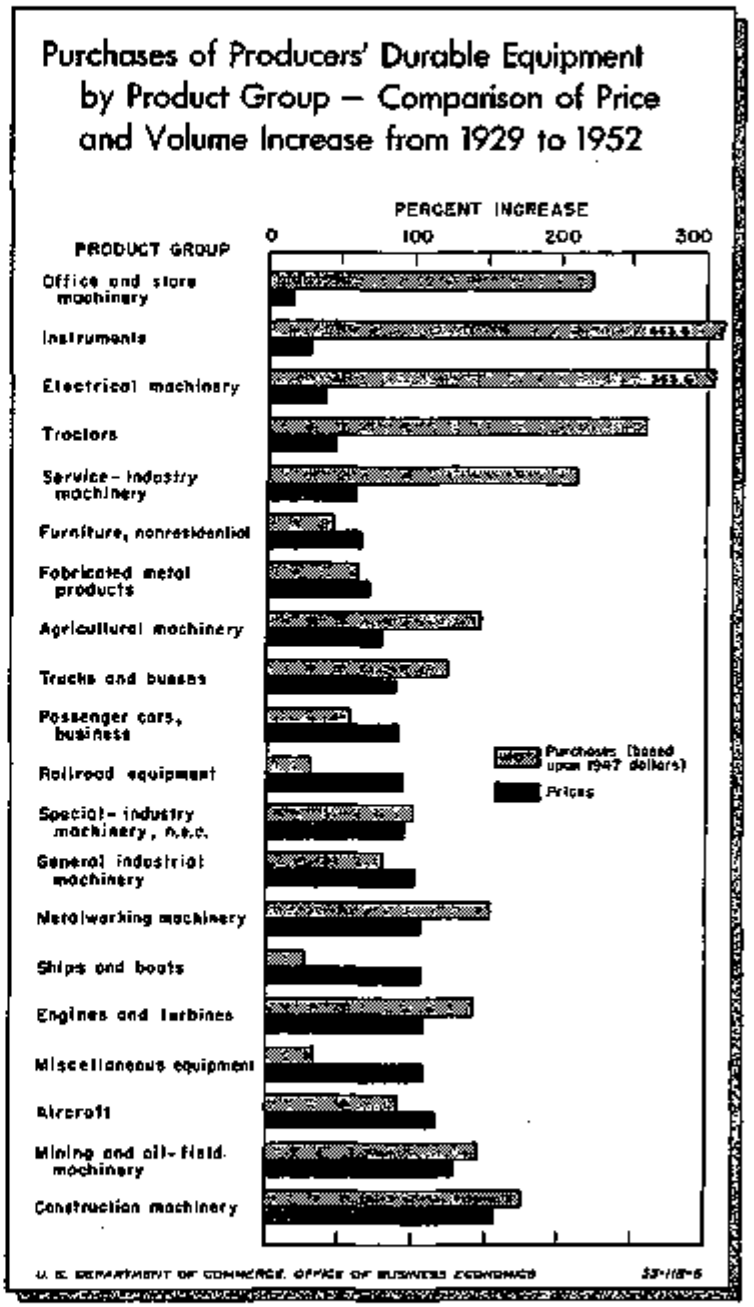
In using the data, two limitations should be kept in mind. In the first place the use of annual rather than quarterly or monthly data understates the amplitude of the change, and the amount of understatement may vary from one product group to another. Secondly, the growth element and irregular fluctuations are reflected in the percentage changes. In the short periods used, the growth element is seldom of major importance, but irregular fluctuations might be.

In the decline following 1929, the volume of producers' equipment purchases fell by 69 percent. Declines were substantial in all product groups, ranging from about 97 percent in aircraft to 48 percent in miscellaneous equipment. In the subsequent revival, the volume of equipment purchases rose an equivalent of 65 percent of the 1929 figure, with product groups ranging from 138 percent for ships and boats to 27 percent for miscellaneous equipment.

Among product groups, the greatest fluctuation in equipment purchases tended to occur in heavy transportation equipment and other equipment generally characterized as "heavy." These types of equipment are not only costly but have long periods of use, with the result that during declines purchases may often be deferred for substantial periods. Furthermore, some of them are used largely in industries which are subject to wide cyclical fluctuations.

From the table it can be seen that the greatest declines occurred in railroad equipment, construction machinery, and aircraft. Among other groups falling more than the general average were tractors, agricultural machinery, metalworking machinery, ships and boats, engines and turbines, mining machinery, and electrical machinery.

In the subsequent revival, all but three of the ten product groups with the greatest advance were also included with the previously mentioned groups showing the greatest decline.




Ships and boats and tractors had the largest increases. These two groups and three others (metalworking machinery, engines and turbines, and trucks and busses) reached levels in the recovery which exceeded those of 1929.

Among the product groups with the smallest fluctuations were fabricated metal products,[3] special industry machinery, office and store machinery, general industrial machinery, and nonresidential furniture and fixtures.

2. The common tendency for above average increases in volume to be associated with less than average increases in price has an important bearing on index number work. Its effect is that composite measures of physical volume that are based on weights relating to the first or an early year of the period will in general increase more than measures that are based on weights relating to the last or a late year of the period. This is so because in composite measures of physical volume the individual quantity components are usually weighted by their relative prices. If the price-quantity relationships noted obtain, components showing larger than average percentage increases will tend to receive larger relative weights in the composite if early year rather than late year prices are used. For instance, in terms of 1929 prices, the 1929–52 increase in the volume of producers' durable equipment was 127 percent. In terms of 1952 prices it was approximately 118 percent—very similar to the 119 percent figure that can be derived from table 8, which is in terms of 1947 prices.

3. This group consists largely of safes and vaults, stills, pressure and storage tanks (not including boilers), and fabricated plate steel for storage tanks.

The concurrent changes in equipment prices were much smaller than those in the volume of purchases. While the volume of purchases dropped 69 percent in the decline following 1929, equipment prices fell about 14 percent. In the subsequent revival, in which the rise in the volume of equipment purchases was 65 percent of the 1929 figure, the rise in equipment prices was 5 percent of the 1929 price. As a consequence of the moderate change in prices, changes in purchases measured in current prices were similar to the volume changes that have been discussed.

On the basis of the data contained in table 2, an examination was made of the price-volume relationships that obtained during this period. In contrast to the moderate inverse association of quantity and price changes that can be observed over longer periods, the short-run price-quantity relationships exhibit no definite pattern, either during the decline or during the subsequent recovery.

The changes which occurred during the 1937–41 and 1948–52 periods also were examined, but the magnitudes of the post-1937 and post-1948 declines were small and the influence of noncyclical factors of relatively greater importance. Inspection of the evidence pertaining to these two periods did not reveal a pattern of change among the twenty equipment groups that appeared to be of more than historical significance.

## Equipment Purchases and Gross National Product

The growth and fluctuations in the major types of producers' durable equipment since 1929 have been traced in detail in the previous section. The analysis may be broadened by introducing data on total private purchases of equipment for earlier periods and by relating these purchases to gross national product and some of its components.

### *Long-term growth*

Equipment purchases during the period 1900–29, although affected by moderate fluctuations, nevertheless showed a fairly persistent rate of growth averaging about 3 percent a year (see chart). In contrast, the period following 1929 has been characterized by more extreme fluctuations, reflecting such major dislocations as the depression of the thirties and World War II. These dominate the picture and make it impossible to isolate a clear-cut trend.

In these circumstances a projection of pre-1929 tendencies into the present is hazardous, and conclusions derived from it should be given limited weight only, and checked against other evidence. With these qualifications in mind, it may be noted, however, that expenditures for producers' durable equipment in the late forties and in the early fifties were somewhat above a line that could be drawn in continuation of the 1900–29 trend. This seems reasonable when viewed in the context of the special factors—such as demand deferred during World War II and, subsequently, investment induced by the Korean war and the defense program—that contributed to a high level of producers' durable equipment purchases during the postwar period.

The sharp dips in the purchases line during the depression of the thirties and the war period should not be interpreted as indicating the size of backlogs that existed at the end of the war. During the depression much equipment was subject to less wear than normal and, consequently, was continued in use during the war even though it had passed the usual age for discard. In addition, in many instances heavier than normal repair expenditures made during the war served to reduce replacement purchases below what would be expected on the basis of data reflecting the experience of less unusual periods.

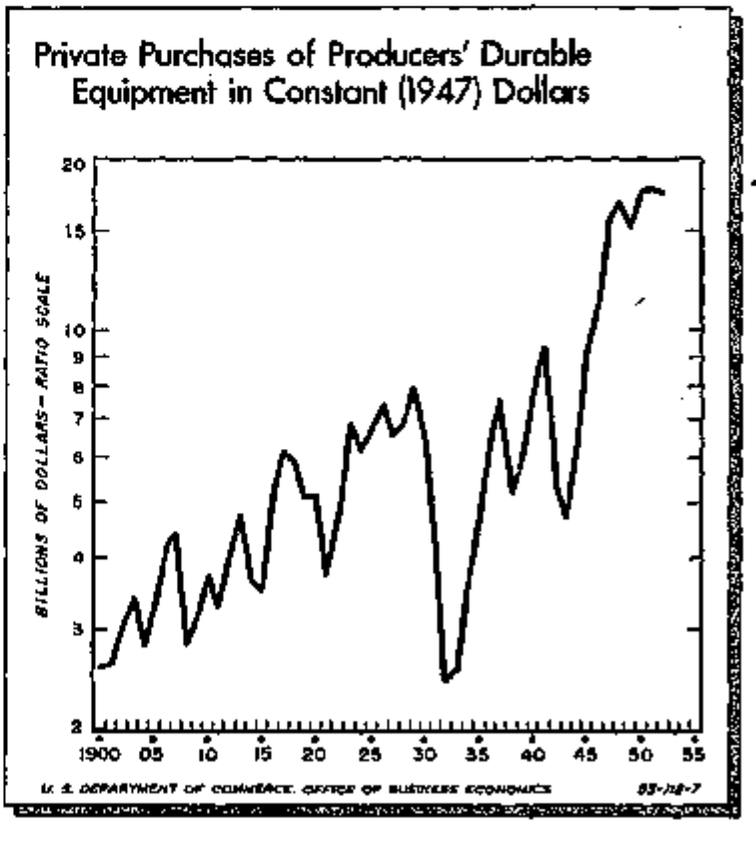
Moreover, equipment acquired by the government during the war constituted additions to productive capacity that are not reflected in the present series, which is confined to private purchases of newly produced equipment.

### *Equipment and nonresidential construction*

The accompanying chart shows equipment purchases and nonresidential construction—the two major components of the business stock of fixed capital—as percentages of gross national product for the years 1920 to 1952. Equipment purchases and nonresidential construction were of roughly equal importance during the twenties—between 5 and 6 percent of total output. During the depression, however, equipment declined less than construction, and its subsequent recovery was quicker and much more pronounced.

Purchases of equipment during the postwar period have continued to constitute a much larger part of total output than nonresidential construction—about 6½ percent as compared with about 3 percent. Also, equipment has recently been a somewhat larger percentage of national output than during the twenties whereas the share of nonresidential construction has been markedly reduced. On a current-price basis the difference in postwar experience is somewhat reduced because of differential price movements.

One possible reason for the relatively better showing of equipment is that equipment prices have increased less than construction costs over this period. In 1952, for example, composite equipment prices were 1.8 times their 1929 level, whereas nonresidential construction costs were about 2.5 times those of 1929. These differential price changes may have had some influence upon the pattern of investment.




Another possible explanation is that technological advance may have been more rapid for equipment than for plant, causing a relatively large demand to replace obsolescent equipment. Technological advance may also have been of a nature which required less plant per unit of equipment.

It is apparent that the quantitative importance of the price factor cannot be measured, and that it is conjectural whether technological advance operated in the manner assumed. Basically, we have no definitive explanation for the differential movement of gross investment in equipment and construction. A detailed analysis of industry shifts and of the influence of differences in average useful life on replacement demand might shed further light on the problem, as might a study of the procedures by which the two types of investment are financed.

## *Short-run variability*

Attention has already been drawn to the great cyclical variability in producers' durable equipment. Table 3 compares changes in the value, volume, and prices of equipment during the downswing and recovery of the thirties with corresponding changes in total gross national product and selected components, and permits a further examination of this point. The method by which the entries of this table were calculated is similar to that described for table 2, and the limitations mentioned in that connection apply to the present table as well. In addition, the present table summarizes the characteristics of very broad expenditure groups and does not reveal divergent movements within these groups which may be significant.

It appears from this table that both in the downward phase of the great depression and during the limited recovery which was interrupted in 1937, the volume of producers' durable equipment fluctuated much more than that of total gross national product. Whereas durable equipment exhibited percentage changes from peak to trough and trough to peak approximating two-thirds the 1929 figure, the corresponding changes in gross national product were only about one-third the 1929 figure.

In sharp contrast, changes in equipment prices were much smaller than those in the composite of all final product prices. During the declining phase of the cycle, for instance, equipment prices declined by 14 percent as compared with a decline of 24 percent in the overall index. This contrast, in a less striking form, was apparent also in the subsequent upturn.

An examination of the components of gross national product presented in table 3 shows that expenditures for equipment and construction are most volatile. Consumer durables rank next, with nondurables and services showing the greatest stability.

In the downturn, construction declined more than equipment, but in the subsequent upturn its recovery was less pronounced. As can be inferred from the previous discussion, this differential movement is probably indicative of divergent long-term trends in the two components rather than of a dissimilarity in their cyclical behavior.

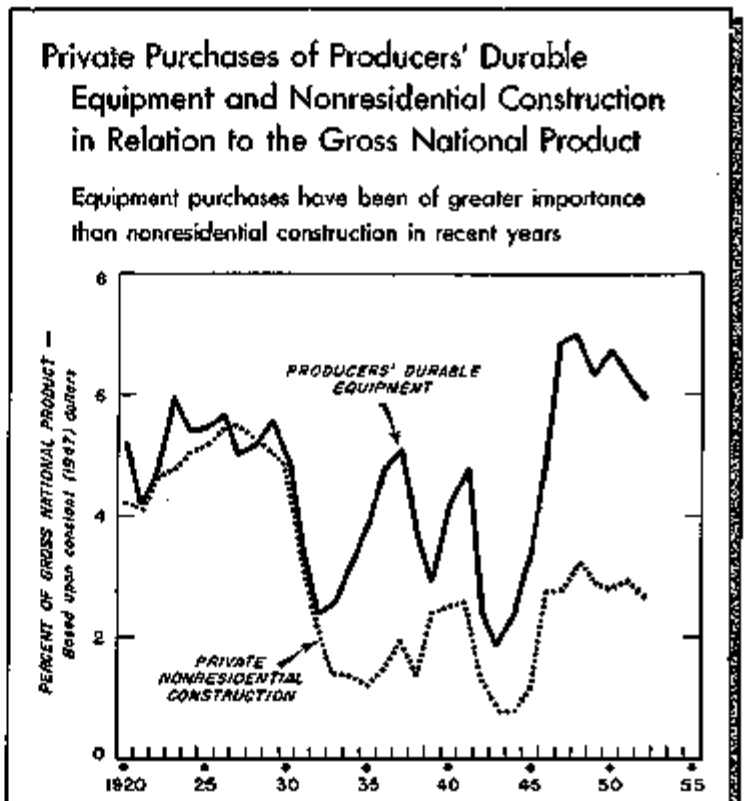
Examination of the average prices of the broad components of private spending reveals that the prices of consumer goods and services experienced larger cyclical variation than those of producers' durable equipment. In other words, the components showing greater stability in volume were those undergoing larger fluctuations in price. It is of interest to note that the behavior of construction costs, as shown in table 3, does not fit into this general pattern. In this instance, an above-average variability in costs appears to have been associated with an above-average variability in volume.

Cyclical downturns subsequent to the great depression of the thirties have been much less pronounced, and the relative impact of noncyclical factors has been greater. It is difficult, therefore, to make inferences as to cyclical behavior on the basis of the record of this period.

An examination of the data for the periods 1937–41 and 1948–52, both of which include a downturn and a subsequent recovery, tends to confirm the generalizations that have been made about the volatility in the volume of equipment purchases and the comparative stability of equipment prices. The comparative behavior of durable equipment and consumption also conforms broadly to the pattern described for the years 1929–37. The most marked departure from that pattern is found in the case of construction, both residential and nonresidential, which behaved differently in each of these periods.

## *Nature of the new series*

The new estimates of producers' durable equipment employ new basic data relating to the value, volume, and prices of producers' durable equipment which have become available during the past few years, mainly in connection with the 1947 Census of Manufactures, the 1948 Census of




Business, Census sample surveys of manufacturing for 1950, 1951, and 1952, quarterly metal working reports of the National Production Authority, and the revision of the Bureau of Labor Statistics index of wholesale prices.

In addition to the incorporation of these new data, the following features were introduced into the new series:

First, the Standard Industrial Classification as of November 1945 was adopted as the basis for grouping products for the entire period 1929 to 1952. This classification is used in the 1947 Census of Manufactures and in subsequent sample surveys, as well as most other governmental statistical series. Thus, users may identify the products included in each group. Construction machinery and mining machinery are shown separately in the following tables but as one group in the Standard Industrial Classification.

Second, the estimates cover only private equipment purchases subject to depreciation charges. They differ from those previously published by the Office of Business Economics in that the earlier estimates included also an allow-

**Table 1.—Private Purchases of Producers' Durable Equipment 1929–52, Current and**

| Type of equipment | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 |
|---|---|---|---|---|---|---|---|---|---|
| | Billions of current dollars | | | | | | | | |
| Producers' durable equipment, total | 6.6 | 4.2 | 2.7 | 1.5 | 1.5 | 2.1 | 2.9 | 4.0 | 4.9 |
| Machinery | 2.6 | 2.0 | 1.3 | .7 | .7 | 1.0 | 1.4 | 2.0 | 2.5 |
| Agricultural machinery and tractors | .3 | .4 | .2 | .1 | .1 | .1 | .3 | .4 | .5 |
| Nonagricultural machinery | 2.2 | 1.6 | 1.1 | .6 | .6 | .8 | 1.1 | 1.6 | 2.0 |
| Transportation equipment | 2.2 | 1.3 | 1.0 | .5 | .6 | .9 | 1.1 | 1.5 | 1.8 |
| Motor vehicles | 1.7 | 1.1 | .8 | .4 | .6 | .7 | 1.0 | 1.3 | 1.4 |
| Other transportation equipment | .5 | .5 | .2 | .1 | (2) | .1 | .2 | .3 | .4 |
| Other equipment | .7 | .6 | .4 | .3 | .2 | .3 | .4 | .6 | .6 |
| | Billions of constant (1947) dollars | | | | | | | | |
| Producers' durable equipment, total | 8.0 | 6.3 | 4.2 | 2.4 | 2.6 | 3.6 | 4.8 | 6.6 | 7.6 |
| Machinery | 3.6 | 2.9 | 2.0 | 1.2 | 1.1 | 1.4 | 2.1 | 3.0 | 3.6 |
| Agricultural machinery and tractors | .8 | .5 | .3 | .1 | .1 | .2 | .3 | .5 | .8 |
| Nonagricultural machinery | 2.1 | 2.4 | 1.7 | 1.0 | 1.0 | 1.3 | 1.8 | 2.5 | 3.0 |
| Transportation equipment | 3.3 | 2.6 | 1.6 | .9 | 1.1 | 1.6 | 2.2 | 3.0 | 3.3 |
| Motor vehicles | 2.5 | 1.8 | 1.3 | .8 | 1.0 | 1.4 | 2.0 | 2.5 | 2.6 |
| Other transportation equipment | .8 | .8 | .3 | .1 | .1 | .3 | .2 | .4 | .7 |
| Other equipment | 1.0 | .8 | .6 | .4 | .4 | .5 | .6 | .7 | .8 |
| | Percent of current dollar total | | | | | | | | |
| Producers' durable equipment, total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Machinery | 47.6 | 47.4 | 48.8 | 48.5 | 45.2 | 44.3 | 48.3 | 48.4 | 52.0 |
| Agricultural machinery and tractors | 8.1 | 10.0 | 8.4 | 6.0 | 6.4 | 6.5 | 9.2 | 9.7 | 10.3 |
| Nonagricultural machinery | 39.5 | 37.4 | 40.4 | 40.5 | 39.8 | 37.8 | 39.1 | 38.7 | 41.7 |
| Transportation equipment | 36.2 | 28.2 | 35.5 | 32.2 | 38.2 | 41.0 | 39.5 | 40.1 | 37.3 |
| Motor vehicles | 30.4 | 26.6 | 29.0 | 28.9 | 35.4 | 34.5 | 35.6 | 33.5 | 28.2 |
| Other transportation equipment | 5.8 | 11.6 | 6.5 | 4.3 | 2.9 | 6.4 | 3.9 | 6.6 | 9.1 |
| Other equipment | 12.2 | 14.3 | 15.7 | 16.3 | 16.5 | 14.7 | 12.2 | 10.5 | 10.7 |
| | Percent of constant dollar total | | | | | | | | |
| Producers' durable equipment, total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Machinery | 45.8 | 45.5 | 47.1 | 47.0 | 42.6 | 40.5 | 43.8 | 44.9 | 46.9 |
| Agricultural machinery and tractors | 6.9 | 8.1 | 6.6 | 5.9 | 3.5 | 4.8 | 6.9 | 7.2 | 7.9 |
| Nonagricultural machinery | 38.9 | 37.4 | 40.6 | 41.1 | 39.1 | 35.9 | 36.9 | 37.7 | 39.0 |
| Transportation equipment | 41.5 | 41.1 | 37.8 | 35.6 | 41.9 | 45.7 | 44.6 | 44.9 | 43.1 |
| Motor vehicles | 31.2 | 27.7 | 30.4 | 30.7 | 38.7 | 38.6 | 40.6 | 39.3 | 33.8 |
| Other transportation equipment | 10.2 | 13.4 | 7.4 | 4.9 | 3.2 | 7.1 | 4.0 | 5.6 | 9.3 |
| Other equipment | 12.7 | 13.4 | 15.1 | 17.4 | 15.5 | 13.8 | 11.6 | 10.2 | 10.0 |

1. Because of rounding, subtotals and totals may differ in some cases from the sum of their components. 2. Less than $0.05 billions.

**Table 2.—Declines from 1929 and Subsequent Recovery through 1936–38 in Private Purchases of Producers' Durable Equipment, by Product Groups, Measured as a Percent of 1929**

| Product group | Change in current dollar purchases | | | | Change in 1947 dollar purchases | | | | Change in prices | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Decline | | Advance | | Decline | | Advance | | Decline | | Advance | |
| | Percent [1] | Rank | Percent [2] | Rank | Percent [1] | Rank | Percent [2] | Rank | Percent [1] | Rank | Percent [2] | Rank |
| **Total producers' durable equipment** | —74 | | 61 | | —69 | | 63 | | —14 | | 6 | |
| Furniture and fixtures (nonresidential) | —73 | 13 | 89 | 19 | —69 | 12 | 40 | 18 | —12 | 13 | 4 | 11 |
| Fabricated metal products | —70 | 15 | 61 | 18 | —62 | 16 | 33 | 19 | —21 | 3 | 20 | 5 |
| Engines and turbines | —62 | 9 | 100 | 3 | —78 | 8 | 87 | 4 | —16 | 12 | 23 | 1 |
| Tractors | —84 | 0 | 129 | 2 | —84 | 4 | 137 | 2 | 2 | 19 | —7 | 18 |
| Agricultural machinery (except tractors) | —82 | 8 | 68 | 8 | —83 | 5 | 68 | 10 | 10 | 20 | —8 | 19 |
| Construction machinery | —62 | 8 | 72 | 0 | —62 | 8 | 66 | 13 | —12 | 15 | 16 | 7 |
| Mining and oil-field machinery | —70 | 10 | 61 | 10 | —77 | 2 | 66 | 12 | —11 | 16 | 2 | 12 |
| Metalworking machinery | —86 | 4 | 100 | 4 | —91 | 6 | 95 | 3 | —23 | 2 | 23 | 2 |
| Special-industry machinery | —67 | 16 | 58 | 12 | —60 | 17 | 47 | 17 | —19 | 7 | 22 | 3 |
| General industrial machinery | —70 | 14 | 61 | 9 | —64 | 14 | 52 | 15 | —17 | 9 | 20 | 6 |
| Office and store machinery | —64 | 19 | 49 | 16 | —63 | 15 | 55 | 14 | —2 | 18 | —4 | 17 |
| Service industry and household machines | —85 | 17 | 55 | 14 | —56 | 19 | 72 | 8 | —21 | 4 | —2 | 15 |
| Electrical machinery | —82 | 7 | 71 | 7 | —75 | 10 | 80 | 7 | —28 | 1 | 13 | 8 |
| Trucks, buses, and trailers | —74 | 12 | 60 | 11 | —69 | 13 | 86 | 6 | —16 | 11 | —11 | 20 |
| Passenger cars | —75 | 11 | 52 | 15 | —70 | 11 | 68 | 11 | —17 | 8 | (3) | 13 |
| Aircraft | —93 | 1 | 44 | 17 | —97 | 1 | 46 | 16 | —20 | 6 | 11 | 10 |
| Ships and boats | —91 | 5 | 147 | 1 | —91 | 7 | 139 | 1 | —19 | 6 | 22 | 4 |
| Railroad equipment | —94 | 2 | 89 | 6 | —94 | 2 | 85 | 6 | —8 | 17 | 13 | 9 |
| Instruments | —84 | 18 | 57 | 13 | —87 | 18 | 72 | 9 | —17 | 10 | —3 | 16 |
| Miscellaneous equipment | —64 | 20 | 23 | 20 | —48 | 20 | 27 | 20 | —12 | 14 | —1 | 14 |

(3) Less than —0.5 percent.
1. Decline from 1929 to low year in cycle (1932 or 1933) expressed as a percentage of the 1929 figure for the group.
2. Advance from a low year in cycle (1932 or 1933) to next subsequent high year (1936, 1937, or 1938), expressed as a percentage of the 1929 figure for the group.
Source: U. S. Department of Commerce, Office of Business Economics.

**Constant (1947) Dollar Values, and Percentage Distributions in Current and Constant Dollars [1]**

| 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Billions of current dollars** | | | | | | | | | | | | | | |
| 3.5 | 4.0 | 5.2 | 6.6 | 6.0 | 3.6 | 4.9 | 7.1 | 10.0 | 15.8 | 16.2 | 17.1 | 20.2 | 22.1 | 22.0 |
| 1.9 | 2.0 | 2.7 | 3.3 | 2.6 | 2.2 | 3.3 | 4.7 | 5.7 | 6.9 | 10.3 | 8.9 | 10.3 | 12.1 | 12.7 |
| .4 | .5 | .4 | .0 | .4 | .2 | .0 | .7 | .6 | 1.2 | 1.7 | 1.9 | 2.0 | 2.3 | 2.1 |
| 1.4 | 1.7 | 2.2 | 2.7 | 2.1 | 2.0 | 2.7 | 4.0 | 5.0 | 7.7 | 8.6 | 7.0 | 8.3 | 9.8 | 10.6 |
| 1.2 | 1.3 | 2.0 | 2.5 | 1.0 | .2 | 1.0 | 1.6 | 3.1 | 5.2 | 6.1 | 6.6 | 8.1 | 7.9 | 7.1 |
| .9 | 1.2 | 1.5 | 2.0 | .4 | .4 | .5 | 1.1 | 2.4 | 4.2 | 4.9 | 5.4 | 7.1 | 6.5 | 5.8 |
| .3 | .2 | .5 | .6 | .4 | .5 | .5 | .5 | .7 | 2.0 | 1.2 | 1.2 | 1.0 | 1.3 | 1.3 |
| .4 | .5 | .5 | .7 | .4 | .6 | .8 | .9 | 1.2 | 1.8 | 1.8 | 1.8 | 1.8 | 2.2 | 2.2 |
| **Billions of constant (1947) dollars** | | | | | | | | | | | | | | |
| 5.2 | 6.1 | 7.9 | 9.4 | 5.3 | 4.8 | 6.6 | 9.0 | 11.4 | 15.8 | 16.9 | 15.2 | 17.6 | 17.8 | 17.4 |
| 2.6 | 2.0 | 3.7 | 4.4 | 3.2 | 2.7 | 4.2 | 5.8 | 6.6 | 6.9 | 9.6 | 8.0 | 8.9 | 9.5 | 10.0 |
| .5 | .6 | .6 | .8 | .5 | .3 | .7 | .9 | .7 | 1.2 | 1.5 | 1.6 | 1.6 | 1.7 | 1.6 |
| 2.1 | 2.4 | 3.1 | 3.6 | 2.6 | 2.5 | 3.5 | 5.0 | 5.8 | 7.7 | 8.1 | 6.4 | 7.3 | 7.6 | 8.4 |
| 2.0 | 2.5 | 3.4 | 4.5 | 1.4 | 1.3 | 1.4 | 2.1 | 3.4 | 5.2 | 5.6 | 5.0 | 7.1 | 6.5 | 5.0 |
| 1.5 | 2.1 | 2.6 | 3.1 | .6 | .6 | .6 | 1.4 | 2.7 | 4.2 | 4.5 | 4.7 | 6.2 | 5.4 | 4.5 |
| .4 | .4 | .7 | .9 | .8 | .6 | .6 | .7 | .8 | 1.0 | 1.1 | 1.1 | .9 | 1.1 | 1.1 |
| .6 | .7 | .8 | 1.6 | .7 | .7 | .8 | 1.1 | 1.4 | 1.3 | 1.7 | 1.4 | 1.6 | 1.8 | 1.8 |
| **Percent of current dollar total** | | | | | | | | | | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 54.1 | 51.4 | 51.4 | 50.3 | 62.4 | 60.1 | 67.6 | 63.4 | 57.1 | 56.0 | 56.7 | 52.2 | 51.0 | 54.8 | 57.8 |
| 12.6 | 9.6 | 8.6 | 2.8 | 11.2 | 6.9 | 12.3 | 9.9 | 6.3 | 7.7 | 9.6 | 11.3 | 9.9 | 10.4 | 9.7 |
| 41.6 | 41.8 | 42.8 | 41.0 | 51.3 | 54.2 | 55.4 | 53.5 | 50.6 | 48.3 | 47.1 | 40.9 | 41.1 | 44.4 | 48.1 |
| 32.7 | 30.7 | 38.1 | 38.5 | 24.1 | 24.7 | 20.1 | 22.4 | 20.0 | 32.7 | 33.6 | 39.0 | 30.9 | 35.3 | 32.1 |
| 25.6 | 30.4 | 28.8 | 28.9 | 9.3 | 10.9 | 10.6 | 14.8 | 22.7 | 26.3 | 27.0 | 31.7 | 25.1 | 29.3 | 26.2 |
| 8.1 | 6.3 | 9.3 | 9.6 | 14.8 | 13.8 | 9.7 | 7.6 | 6.9 | 6.4 | 6.6 | 7.3 | 4.8 | 6.0 | 5.9 |
| 12.9 | 11.9 | 10.5 | 10.0 | 13.5 | 13.2 | 12.3 | 12.2 | 12.3 | 11.3 | 9.7 | 8.8 | 8.1 | 9.9 | 10.2 |
| **Percent of constant dollar total** | | | | | | | | | | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 49.9 | 47.3 | 46.9 | 46.6 | 59.4 | 57.7 | 65.0 | 64.8 | 57.5 | 56.0 | 56.8 | 52.3 | 50.5 | 53.4 | 57.5 |
| 10.0 | 7.6 | 7.1 | 5.6 | 10.2 | 5.4 | 11.5 | 9.6 | 6.5 | 7.7 | 9.1 | 10.5 | 8.1 | 9.7 | 9.0 |
| 39.9 | 39.8 | 39.8 | 38.0 | 49.2 | 52.3 | 54.5 | 55.2 | 51.0 | 48.3 | 47.7 | 41.8 | 41.4 | 43.7 | 48.5 |
| 38.1 | 41.1 | 42.8 | 42.9 | 27.6 | 27.3 | 21.7 | 22.9 | 29.9 | 32.7 | 33.4 | 39.6 | 40.2 | 35.6 | 31.9 |
| 28.7 | 34.8 | 33.5 | 33.4 | 12.1 | 13.5 | 12.3 | 15.2 | 23.3 | 26.3 | 26.7 | 31.1 | 35.2 | 30.2 | 25.7 |
| 8.4 | 6.3 | 9.3 | 9.5 | 14.9 | 13.7 | 9.4 | 7.7 | 6.6 | 6.4 | 6.7 | 7.6 | 5.0 | 5.4 | 6.2 |
| 12.0 | 11.6 | 10.3 | 10.6 | 13.6 | 15.1 | 12.3 | 12.3 | 12.0 | 11.3 | 9.8 | 9.1 | 9.3 | 10.0 | 10.4 |

Source: U. S. Department of Commerce, Office of Business Economics.

**Table 3.—Declines From 1929 and Subsequent Recovery Through 1937 in Selected Gross National Product Components, Each Measured as a Percentage of 1929**

| Component | Change in current dollars | | Change in 1947 dollars | | Change in prices | |
|---|---|---|---|---|---|---|
| | Decline [1] | Advance [2] | Decline [1] | Advance [2] | Decline [1] | Advance [2] |
| Gross national product | −46 | 33 | −29 | 33 | −24 | 7 |
| Producers' durable equipment | −74 | 61 | −69 | 60 | −14 | 5 |
| Nonresidential construction | −82 | 28 | −76 | 24 | −27 | 20 |
| Residential construction | −97 | 30 | −92 | 33 | −28 | 20 |
| Consumer durable goods | −63 | 37 | −52 | 40 | −21 | 7 |
| Consumer nondurable goods | −41 | 34 | −14 | 27 | −31 | 14 |
| Consumer services | −35 | 14 | −11 | 11 | −27 | 6 |

1. Decline from 1929 to low year in cycle (1932 or 1933) expressed as a percentage of the 1929 figure for the component.
2. Advance from 1933 to 1937 expressed as a percentage of the 1929 figure for the component.

Source: U. S. Department of Commerce, Office of Business Economics.

**Table 4.—Comparison of Published Series and New Series for Private Purchases of Producers' Durable Equipment, 1929–52**

[Billions of dollars]

| Year | Published series [1] | | | New series |
|---|---|---|---|---|
| | Total [2] | Capital outlays charged to current expense [2] | Excluding charges to current expense [2] | |
| 1929 | 6.4 | 0.6 | 5.8 | 5.6 |
| 1930 | 4.9 | .6 | 4.1 | 4.2 |
| 1931 | 3.2 | .4 | 2.8 | 2.7 |
| 1932 | 1.8 | .3 | 1.5 | 1.5 |
| 1933 | 1.8 | .3 | 1.5 | 1.6 |
| 1934 | 2.5 | .3 | 2.2 | 2.1 |
| 1935 | 3.4 | .4 | 3.0 | 2.9 |
| 1936 | 4.5 | .5 | 4.0 | 4.0 |
| 1937 | 5.4 | .5 | 4.9 | 4.9 |
| 1938 | 4.0 | .4 | 3.5 | 3.5 |
| 1939 | 4.6 | .5 | 4.0 | 4.0 |
| 1940 | 6.1 | .7 | 5.4 | 5.2 |
| 1941 | 7.7 | .8 | 6.8 | 6.6 |
| 1942 | 4.9 | .6 | 4.3 | 4.6 |
| 1943 | 4.1 | .5 | 3.6 | 3.6 |
| 1944 | 5.7 | .6 | 5.2 | 4.9 |
| 1945 | 7.5 | .7 | 6.8 | 7.1 |
| 1946 | 12.3 | 1.4 | 10.9 | 10.9 |
| 1947 | 17.1 | 1.6 | 15.5 | 15.8 |
| 1948 | 19.9 | 1.9 | 18.0 | 18.2 |
| 1949 | 18.7 | 1.7 | 17.0 | 17.1 |
| 1950 | 22.3 | 2.1 | 20.2 | 20.2 |
| 1951 | 24.6 | 2.5 | 22.1 | 22.1 |
| 1952 | 25.4 | 2.8 | 22.6 | 22.0 |

1. Producers' durable equipment series now in use as a component of gross national product in the national income accounts.
2. Because of rounding, parts may not add to total.

Source: U. S. Department of Commerce, Office of Business Economics.

**Table 5—Private Purchases of**

[Millions of dollars]

| Product group | S. I. C. No.[1] | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total producers' durable equipment | | 5,408 | 4,241 | 2,683 | 1,476 | 1,460 | 2,146 | 2,895 | 3,964 | 4,855 |
| Furniture and fixtures (nonresidential) | 25 | 381 | 292 | 193 | 113 | 98 | 141 | 164 | 181 | 230 |
| Fabricated metal products | 34 | 132 | 112 | 80 | 49 | 40 | 57 | 84 | 74 | 94 |
| Engines and turbines | 351 | 64 | 45 | 29 | 12 | 10 | 17 | 25 | 43 | 61 |
| Tractors | 3521 | 185 | 174 | 113 | 56 | 30 | 69 | 131 | 206 | 270 |
| Agricultural machinery (except tractors) | 3522 | 225 | 223 | 114 | 52 | 49 | 71 | 136 | 176 | 220 |
| Construction machinery | 3531 | 90 | 73 | 43 | 7 | 7 | 17 | 31 | 54 | 72 |
| Mining and oil-field machinery | 3531, 3532 | 148 | 87 | 43 | 30 | 33 | 31 | 77 | 117 | 119 |
| Metalworking machinery | 354 | 233 | 149 | 89 | 35 | 37 | 78 | 130 | 195 | 207 |
| Special-industry machinery, n. e. c. | 355 | 407 | 288 | 210 | 133 | 152 | 196 | 227 | 309 | 386 |
| General industrial machinery | 356, 3591 | 440 | 314 | 226 | 134 | 130 | 173 | 240 | 335 | 400 |
| Office and store machinery | 357 | 201 | 144 | 104 | 73 | 73 | 93 | 115 | 140 | 172 |
| Service-industry and household machines | 358 | 180 | 147 | 117 | 65 | 61 | 74 | 92 | 134 | 168 |
| Electrical machinery | 36 | 443 | 339 | 220 | 166 | 89 | 123 | 193 | 246 | 296 |
| Trucks, buses, and trailers | 371 | 500 | 422 | 291 | 155 | 189 | 307 | 393 | 508 | 523 |
| Passenger cars [2] | 371 | 1,106 | 701 | 459 | 271 | 331 | 456 | 643 | 822 | 849 |
| Aircraft | 3721 | 43 | 17 | 9 | 1 | 3 | 15 | 8 | 7 | 10 |
| Ships and boats | 372 | 75 | 100 | 83 | 18 | 12 | 21 | 9 | 57 | 65 |
| Railroad equipment | 374 | 374 | 374 | 83 | 45 | 22 | 101 | 97 | 106 | 356 |
| Instruments | 38 | 81 | 69 | 51 | 34 | 29 | 32 | 41 | 51 | 75 |
| Miscellaneous equipment | (2) | 161 | 134 | 97 | 74 | 74 | 85 | 94 | 111 | 113 |

1. Products are classified in accordance with Standard Industrial Classification of November 1945.

2. Business portion of passenger automobiles is estimated at about 80 percent of total private purchases except during years 1942–45.

**Table 6.—Private Purchases of Producers' Durable**

[Millions of 1947 dollars]

| Product group | S. I. C. No.[1] | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total producers' durable equipment | | 7,005 | 6,317 | 4,209 | 2,430 | 2,696 | 3,661 | 4,822 | 6,633 | 7,607 |
| Furniture and fixtures (nonresidential) | 25 | 471 | 376 | 251 | 163 | 146 | 205 | 230 | 279 | 336 |
| Fabricated metal products | 34 | 195 | 161 | 131 | 83 | 72 | 96 | 96 | 115 | 132 |
| Engines and turbines | 351 | 85 | 74 | 48 | 22 | 19 | 28 | 38 | 57 | 93 |
| Tractors | 3521 | 303 | 285 | 225 | 64 | 33 | 78 | 149 | 242 | 310 |
| Agricultural machinery (except tractors) | 3522 | 346 | 325 | 197 | 82 | 58 | 87 | 182 | 234 | 294 |
| Construction machinery | 3531 | 169 | 134 | 81 | 15 | 14 | 33 | 49 | 102 | 125 |
| Mining and oil-field machinery | 3531, 3532 | 239 | 145 | 72 | 56 | 61 | 91 | 140 | 213 | 197 |
| Metalworking machinery | 354 | 346 | 238 | 151 | 67 | 71 | 119 | 214 | 319 | 294 |
| Special-industry machinery, n. e. c. | 355 | 606 | 461 | 320 | 245 | 276 | 296 | 363 | 492 | 532 |
| General industrial machinery | 356, 3591 | 643 | 490 | 373 | 237 | 250 | 279 | 351 | 527 | 560 |
| Office and store machinery | 357 | 299 | 149 | 107 | 78 | 82 | 100 | 133 | 160 | 192 |
| Service-industry and household machines | 358 | 265 | 213 | 176 | 117 | 118 | 141 | 176 | 271 | 309 |
| Electrical machinery | 36 | 629 | 443 | 341 | 170 | 183 | 191 | 278 | 350 | 557 |
| Trucks, buses, and trailers | 371 | 853 | 658 | 479 | 207 | 353 | 579 | 794 | 1,002 | 981 |
| Passenger cars [2] | 371 | 1,035 | 1,094 | 801 | 486 | 640 | 796 | 1,185 | 1,539 | 1,590 |
| Aircraft | 3721 | 65 | 29 | 16 | 2 | 17 | 28 | 15 | 13 | 33 |
| Ships and boats | 373 | 123 | 185 | 152 | 38 | 24 | 37 | 19 | 99 | 104 |
| Railroad equipment | 374 | 623 | 623 | 149 | 81 | 40 | 188 | 181 | 327 | 569 |
| Instruments | 38 | 89 | 78 | 59 | 38 | 36 | 41 | 54 | 87 | 101 |
| Miscellaneous equipment | (2) | 271 | 233 | 184 | 142 | 143 | 159 | 179 | 215 | 189 |

1. Products are classified in accordance with Standard Industrial Classification of November 1945.

2. Business portion of passenger automobiles is estimated at about 80 percent of total private purchases except during years 1942–45.

**Table 7.—Implicit Price Deflators for**

[Index numbers, 1947=100]

| Product group | S. I. C. No.[1] | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total producers' durable equipment | | 70.0 | 67.1 | 63.7 | 60.2 | 50.9 | 60.3 | 60.0 | 59.8 | 63.8 |
| Furniture and fixtures (nonresidential) | 25 | 70.5 | 77.0 | 74.1 | 69.2 | 67.3 | 68.5 | 66.9 | 65.0 | 70.2 |
| Fabricated metal products | 34 | 71.4 | 69.6 | 61.2 | 58.8 | 56.7 | 96.1 | 66.4 | 64.3 | 71.3 |
| Engines and turbines | 351 | 63.9 | 60.6 | 54.5 | 54.4 | 53.0 | 61.5 | 65.2 | 64.7 | 66.5 |
| Tractors | 3521 | 91.5 | 94.3 | 89.3 | 87.5 | 94.0 | 88.3 | 87.7 | 86.1 | 87.2 |
| Agricultural machinery (except tractors) | 3522 | 78.5 | 77.4 | 77.4 | 76.2 | 84.1 | 81.3 | 74.8 | 75.3 | 77.9 |
| Construction machinery | 3531 | 53.3 | 53.2 | 50.9 | 45.8 | 48.7 | 52.1 | 52.5 | 52.7 | 57.4 |
| Mining and oil-field machinery | 3531, 3532 | 59.9 | 59.4 | 57.2 | 53.5 | 54.5 | 55.9 | 55.2 | 53.0 | 60.5 |
| Metalworking machinery | 354 | 67.4 | 62.5 | 58.5 | 52.1 | 52.3 | 61.2 | 60.7 | 61.2 | 57.7 |
| Special-industry machinery, n. e. c. | 355 | 66.9 | 62.5 | 58.4 | 54.3 | 54.7 | 62.8 | 62.6 | 62.6 | 69.2 |
| General industrial machinery | 356, 3591 | 68.4 | 64.1 | 60.4 | 56.6 | 56.5 | 62.0 | 63.0 | 62.9 | 70.3 |
| Office and store machinery | 357 | 90.0 | 96.9 | 90.8 | 93.7 | 87.8 | 88.2 | 86.2 | 87.7 | 89.5 |
| Service-industry and household machines | 358 | 70.1 | 69.0 | 66.3 | 55.7 | 51.7 | 52.4 | 51.6 | 49.4 | 54.3 |
| Electrical machinery | 36 | 83.7 | 74.9 | 67.4 | 63.7 | 60.4 | 60.2 | 70.3 | 70.3 | 71.1 |
| Trucks, buses, and trailers | 371 | 60.2 | 64.3 | 60.7 | 59.0 | 52.7 | 53.0 | 50.8 | 50.7 | 53.3 |
| Passenger cars | 371 | 57.6 | 64.1 | 60.9 | 55.8 | 51.7 | 54.9 | 52.8 | 53.4 | 53.4 |
| Aircraft | 3721 | 62.7 | 50.3 | 54.9 | 50.4 | 47.0 | 53.3 | 53.6 | 53.1 | 57.2 |
| Ships and boats | 373 | 61.1 | 58.7 | 54.6 | 50.4 | 49.8 | 50.3 | 57.1 | 57.5 | 62.3 |
| Railroad equipment | 374 | 60.0 | 59.1 | 56.6 | 55.6 | 55.0 | 54.3 | 60.2 | 62.0 | 62.6 |
| Instruments | 38 | 92.0 | 88.7 | 86.3 | 80.7 | 76.5 | 79.0 | 75.3 | 76.3 | 74.1 |
| Miscellaneous equipment | (2) | 59.4 | 57.6 | 52.9 | 52.2 | 51.9 | 53.6 | 52.6 | 51.7 | 59.9 |

1. Products are classified in accordance with Standard Industrial Classification of November 1945.

2. Includes producers' share of the following: Miscellaneous manufactures (Group 39); Motorcycles (Group 3751); Transportation equipment, n. e. c. (Group 3790); Motor vehicle

**Producers' Durable Equipment, 1929–52**

[Millions of dollars]

| 1928 | 1929 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3,495 | 3,955 | 5,236 | 6,061 | 4,034 | 2,615 | 4,925 | 7,216 | 9,987 | 15,939 | 18,235 | 17,060 | 20,107 | 22,136 | 22,048 |
| 197 | 210 | 252 | 332 | 248 | 200 | 213 | 287 | 500 | 680 | 629 | 551 | 704 | 878 | 855 |
| 70 | 80 | 96 | 121 | 117 | 147 | 174 | 215 | 228 | 324 | 372 | 290 | 312 | 370 | 360 |
| 44 | 54 | 62 | 56 | 26 | 47 | 91 | 193 | 52 | 148 | 215 | 193 | 255 | 280 | 268 |
| 204 | 185 | 240 | 341 | 187 | 35 | 253 | 294 | 298 | 544 | 787 | 864 | 912 | 1,026 | 976 |
| 229 | 253 | 200 | 309 | 280 | 180 | 349 | 414 | 351 | 676 | 995 | 1,075 | 1,077 | 1,310 | 1,161 |
| 62 | 57 | 80 | 88 | 74 | 66 | 38 | 273 | 322 | 402 | 502 | 343 | 511 | 576 | 640 |
| 79 | 90 | 119 | 315 | 117 | 112 | 164 | 293 | 301 | 352 | 387 | 425 | 544 | 735 | 792 |
| 153 | 214 | 475 | 667 | 529 | 502 | 451 | 575 | 648 | 771 | 664 | 522 | 740 | 932 | 1,197 |
| 276 | 297 | 335 | 358 | 297 | 232 | 380 | 520 | 857 | 1,340 | 1,458 | 1,159 | 1,403 | 1,567 | 1,574 |
| 282 | 322 | 344 | 367 | 249 | 230 | 504 | 738 | 803 | 1,170 | 1,300 | 1,069 | 1,162 | 1,531 | 1,535 |
| 143 | 140 | 178 | 215 | 167 | 119 | 174 | 220 | 443 | 668 | 648 | 553 | 534 | 663 | 730 |
| 127 | 142 | 102 | 179 | 150 | 174 | 246 | 345 | 456 | 673 | 1,276 | 991 | 941 | 824 | 926 |
| 293 | 328 | 403 | 549 | 349 | 326 | 572 | 776 | 1,129 | 2,061 | 1,968 | 1,730 | 2,104 | 2,597 | 2,865 |
| 306 | 480 | 552 | 737 | 128 | 140 | 248 | 901 | 1,376 | 2,283 | 2,613 | 2,138 | 2,881 | 2,803 | 2,466 |
| 624 | 715 | 945 | 1,158 | 251 | 253 | 167 | 152 | 895 | 1,859 | 2,316 | 3,200 | 4,237 | 3,622 | 3,309 |
| 15 | 23 | 39 | 36 | 5 | 0 | 0 | 12 | 166 | 145 | 75 | 103 | 63 | 86 | 187 |
| 122 | 87 | 133 | 186 | 197 | 232 | 180 | 195 | 174 | 236 | 122 | 103 | 111 | 168 | 192 |
| 142 | 170 | 313 | 408 | 394 | 268 | 346 | 531 | 359 | 531 | 1,004 | 1,080 | 706 | 1,075 | 935 |
| 57 | 71 | 61 | 59 | 33 | 37 | 69 | 170 | 228 | 335 | 355 | 315 | 330 | 517 | 558 |
| 97 | 108 | 140 | 164 | 149 | 136 | 153 | 185 | 274 | 375 | 402 | 341 | 424 | 426 | 440 |

3. Includes producers' share of the following: Miscellaneous manufactures (Group 39); Motorcycles (Group 37511); Transportation equipment, n. e. c. (Group 3799); Motor vehicle heaters (no code); Textile mill products (Group 22); Lumber and wood products, except furniture (Group 24); Saddlery, harness, and whips (Group 3192); Stone, clay, and glass products (Group 32).

Source: U. S. Department of Commerce, Office of Business Economics.

**Equipment in Constant Dollars, 1929–52**

[Millions of 1947 dollars]

| 1928 | 1929 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,212 | 5,001 | 7,906 | 9,276 | 5,219 | 4,754 | 6,304 | 9,010 | 11,417 | 15,939 | 16,887 | 15,214 | 17,641 | 17,769 | 17,417 |
| 288 | 312 | 371 | 459 | 314 | 256 | 270 | 360 | 504 | 680 | 596 | 507 | 620 | 698 | 683 |
| 96 | 116 | 142 | 172 | 152 | 190 | 233 | 285 | 281 | 324 | 352 | 268 | 273 | 300 | 286 |
| 84 | 72 | 97 | 74 | 32 | 60 | 111 | 230 | 58 | 148 | 196 | 178 | 217 | 214 | 204 |
| 235 | 240 | 300 | 426 | 209 | 43 | 218 | 308 | 848 | 644 | 674 | 715 | 760 | 838 | 730 |
| 286 | 233 | 269 | 386 | 237 | 216 | 419 | 405 | 504 | 676 | 870 | 884 | 864 | 883 | 844 |
| 104 | 90 | 130 | 131 | 103 | 36 | 80 | 363 | 373 | 408 | 449 | 390 | 410 | 409 | 466 |
| 126 | 148 | 137 | 312 | 160 | 140 | 213 | 369 | 347 | 352 | 528 | 419 | 460 | 500 | 526 |
| 219 | 305 | 632 | 632 | 708 | 721 | 584 | 604 | 718 | 711 | 617 | 463 | 623 | 694 | 572 |
| 391 | 420 | 648 | 446 | 386 | 283 | 442 | 560 | 940 | 1,340 | 1,349 | 1,050 | 1,199 | 1,289 | 1,209 |
| 410 | 456 | 477 | 494 | 317 | 370 | 634 | 924 | 1,096 | 1,170 | 1,185 | 910 | 953 | 1,107 | 1,154 |
| 161 | 160 | 102 | 224 | 174 | 126 | 190 | 264 | 476 | 558 | 630 | 648 | 606 | 595 | 671 |
| 227 | 261 | 228 | 287 | 217 | 245 | 337 | 467 | 561 | 673 | 1,218 | 850 | 695 | 741 | 823 |
| 274 | 475 | 709 | 761 | 477 | 438 | 907 | 1,037 | 1,339 | 2,061 | 1,996 | 1,656 | 1,943 | 2,179 | 2,463 |
| 602 | 830 | 926 | 1,132 | 166 | 202 | 405 | 1,000 | 1,516 | 2,389 | 2,365 | 1,543 | 2,525 | 2,243 | 1,900 |
| 944 | 1,203 | 1,717 | 1,997 | 479 | 442 | 315 | 281 | 1,110 | 1,889 | 2,133 | 2,578 | 3,078 | 3,018 | 2,573 |
| 25 | 38 | 55 | 63 | 8 | 0 | 0 | 15 | 178 | 145 | 68 | 91 | 53 | 66 | 123 |
| 194 | 91 | 215 | 272 | 279 | 326 | 176 | 275 | 190 | 236 | 115 | 93 | 99 | 139 | 154 |
| 219 | 284 | 455 | 570 | 506 | 326 | 422 | 406 | 584 | 631 | 660 | 963 | 732 | 927 | 807 |
| 75 | 93 | 70 | 89 | 35 | 76 | 81 | 215 | 249 | 335 | 332 | 294 | 365 | 434 | 486 |
| 184 | 198 | 229 | 281 | 211 | 186 | 202 | 230 | 318 | 375 | 372 | 316 | 388 | 351 | 360 |

3. Includes producers' share of the following: Miscellaneous manufactures (Group 39); Motorcycles (Group 37511); Transportation equipment, n. e. c. (Group 3799); Motor vehicle heaters (no code); Textile mill products (Group 22); Lumber and wood products, except furniture (Group 24); Saddlery, harness, and whips (Group 3192); Stone, clay, and glass products (Group 32).

Source: U. S. Department of Commerce, Office of Business Economics.

**Producers' Durable Equipment, 1929–52**

[Index numbers, 1947=100]

| 1928 | 1929 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66.3 | 64.9 | 66.2 | 70.0 | 70.0 | 70.0 | 77.4 | 79.0 | 87.5 | 100.0 | 108.0 | 112.1 | 114.6 | 124.6 | 126.9 |
| 68.3 | 67.4 | 68.0 | 72.3 | 79.1 | 78.1 | 79.0 | 78.3 | 84.2 | 100.0 | 107.2 | 108.6 | 113.0 | 127.7 | 126.2 |
| 71.4 | 69.7 | 67.4 | 70.4 | 73.8 | 73.9 | 74.0 | 79.5 | 81.1 | 100.0 | 105.3 | 108.4 | 114.3 | 123.4 | 120.9 |
| 68.3 | 68.0 | 71.2 | 73.4 | 80.3 | 78.4 | 81.7 | 81.9 | 90.3 | 100.0 | 109.7 | 117.8 | 117.5 | 131.1 | 131.3 |
| 85.8 | 81.3 | 89.0 | 93.3 | 82.4 | 81.0 | 80.0 | 79.9 | 86.1 | 100.0 | 112.4 | 119.4 | 121.7 | 130.7 | 133.7 |
| 80.1 | 78.6 | 78.4 | 80.3 | 83.1 | 83.2 | 83.4 | 83.6 | 89.0 | 100.0 | 113.2 | 121.6 | 124.6 | 126.2 | 127.5 |
| 49.4 | 50.1 | 61.7 | 67.3 | 72.0 | 74.0 | 75.0 | 76.4 | 86.3 | 100.0 | 112.0 | 118.5 | 122.0 | 126.0 | 126.8 |
| 62.7 | 61.0 | 63.5 | 69.6 | 73.1 | 75.0 | 76.0 | 78.4 | 86.8 | 100.0 | 109.1 | 115.7 | 121.1 | 126.1 | 125.8 |
| 69.8 | 70.2 | 75.2 | 80.2 | 81.9 | 82.1 | 82.4 | 82.9 | 90.0 | 100.0 | 107.7 | 112.8 | 119.7 | 134.4 | 137.3 |
| 70.1 | 70.8 | 74.5 | 78.8 | 81.2 | 80.7 | 81.5 | 81.9 | 89.0 | 100.0 | 107.7 | 113.2 | 117.0 | 130.2 | 130.2 |
| 71.2 | 70.7 | 72.1 | 73.9 | 78.6 | 78.3 | 79.5 | 79.9 | 85.8 | 100.0 | 107.7 | 117.5 | 121.9 | 138.3 | 137.3 |
| 89.1 | 89.0 | 89.9 | 92.0 | 90.2 | 91.2 | 91.8 | 93.2 | 93.1 | 100.0 | 102.9 | 103.2 | 104.7 | 111.5 | 111.8 |
| 86.0 | 84.7 | 95.6 | 92.4 | 89.1 | 71.1 | 72.7 | 73.9 | 81.9 | 100.0 | 101.8 | 104.9 | 105.2 | 112.6 | 112.5 |
| 70.4 | 69.1 | 69.6 | 72.1 | 75.2 | 74.2 | 74.1 | 74.8 | 84.3 | 100.0 | 103.8 | 104.5 | 108.5 | 119.7 | 116.8 |
| 59.8 | 58.9 | 60.7 | 65.1 | 75.7 | 69.4 | 73.8 | 82.7 | 89.0 | 100.0 | 110.5 | 115.7 | 118.3 | 122.2 | 122.9 |
| 55.5 | 55.3 | 55.2 | 58.0 | 59.5 | 57.8 | 53.0 | 64.1 | 88.9 | 100.0 | 105.0 | 113.0 | 113.2 | 120.0 | 128.6 |
| 59.7 | 60.0 | 60.4 | 65.1 | 73.5 | ..... | ..... | 80.7 | 87.5 | 100.0 | 106.7 | 113.7 | 118.8 | 120.4 | 125.3 |
| 63.0 | 62.0 | 61.6 | 68.0 | 70.6 | 71.4 | 72.7 | 70.9 | 91.6 | 100.0 | 107.0 | 109.8 | 112.7 | 121.3 | 125.0 |
| 64.8 | 66.9 | 63.5 | 71.6 | 77.0 | 82.5 | 82.0 | 81.5 | 93.6 | 100.0 | 105.7 | 103.1 | 106.7 | 116.0 | 115.2 |
| 78.2 | 76.1 | 80.0 | 85.8 | 90.9 | 88.5 | 85.5 | 83.3 | 90.6 | 100.0 | 106.9 | 107.1 | 109.6 | 119.2 | 118.5 |
| 59.3 | 58.2 | 61.2 | 65.4 | 76.2 | 73.0 | 75.2 | 77.3 | 89.2 | 100.0 | 108.0 | 108.0 | 111.0 | 124.4 | 123.3 |

heaters (no code); Textile mill products (Group 29); Lumber and wood products, except furniture (Group 24); Saddlery, harness, and whips (Group 3192); Stone, clay, and glass products (Group 32).

Source: U. S. Department of Commerce, Office of Business Economics.

ance for purchases of durable equipment charged directly to current expense (e. g., hand tools).

The estimates by major product group are contained in three tables in this article. Table 5 presents the new estimates in current dollars. Table 6 presents them in constant (1947) dollars, and table 7 shows the implicit deflators obtained by dividing the current dollar by the constant dollar estimates.

The commodity flow method used in preparing the current dollar estimates is described in the 1951 *National Income* supplement.[4] The general approach is discussed under "Personal Consumption Expenditures for Commodities," pages 97–105 of the supplement. Its specific application of the method to producers' durable equipment can be found on pages 118–122. The procedure for obtaining the constant-dollar estimates and the implicit deflators is explained on pages 141–146 of the same publication.

The new estimates can be compared with the producers' durable equipment series currently published as a part of gross national product only after the equipment portion of capital outlays charged to current expense are subtracted from the latter. This is done in table 4 which presents a comparison of the published series on private purchases of producers' durable equipment and the new series for the period 1929–52.

4. The 1951 *National Income* supplement to the SURVEY OF CURRENT BUSINESS, available at $1 from the Superintendent of Documents, Washington 25, D. C., or the various Department of Commerce field offices.

# *Metal Supplies and Prices*

(*Continued from page 10*)

receipts of foreign lead had a much greater impact upon domestic supplies than for zinc because imports of lead account for a much larger proportion of total domestic consumption than is the case for zinc.

By the end of 1951, under the impact of increasing world supplies and slackening foreign demand the London prices of these metals had started to drop toward those prevailing in the domestic market. As a result, imports were resumed on an increasing scale beginning in the second quarter of 1952. By the end of that year, the increase in supplies relative to demand had been reflected in declines of the domestic prices of these metals below the ceiling prices established by the Office of Price Stabilization, while prices in the free London market had fallen farther.

Zinc supplies continued to increase until the third quarter of this year when there was some decline in domestic mine production coupled with lower imports, but supplies were still higher than in any but the immediately preceding quarter. Despite the reduced volume, new supplies exceeded consumption so that stocks in the hands of producers have risen steadily and at the end of October were the highest of the postwar period.

In the case of lead, new supplies moved downward in 1953 with volume in the third quarter the lowest since the January–March period of 1952. Receipts of lead from foreign sources had been of record size in 1952, about 2½ times greater than in 1951 and 16 percent above the previous record established in 1950. In the fourth quarter of 1952, such receipts were exceptionally heavy and reflected to some extent the release of large tonnages held by the British Government when the free market in London was reopened on October 1, 1952.

## *Nonferrous metal price movements mixed*

The elimination of scarcities has been reflected on the domestic market in prices of primary lead and zinc, which have been moving generally downward since early 1952, and of scrap metals.

From June 1950 to January 1951, when OPS price controls went into effect, prices of primary copper, lead, and zinc had advanced sharply (see chart). Imports constitute an important portion of domestic supplies for these metals, which in the absence of controls are traded in a world market where prices are highly sensitive to changes in world demand. Price advances in the precontrol period ranged from one-fourth for refined copper to nearly one-half for lead and zinc.

During the period of controls from January 1951 to early 1953 the price of domestic refined copper remained unchanged but consumers were permitted to buy foreign copper at a price above the domestic metal. Increases were also authorized for lead and zinc in late 1951 but before the end of the second quarter of 1952 market prices fell below official ceilings.

At the expiration of price controls, copper, which had been in a relatively tight supply position throughout the period of the defense buildup, immediately moved upward to around 30 cents per pound where it has remained. After the restoration of the free market in London in August, London prices declined and came into approximate balance with domestic prices. Negotiations between the Governments of the United States and Chile are in process over the disposition of large stocks, estimated at well over 100,000 tons, accumulated over the year and owned by the Chilean Government. In comparison with June 1950, the current domestic price for copper is up by about one-half.

The price of pig lead in October 1953, though down nearly one-third from its peak, was still moderately above the level of June 1950 while slab zinc, down nearly one-half, was below it.

## *Scrap metal prices decline*

Scrap prices of all basic metals are down from their peaks, with the size of the declines varying considerably. In the case of steel, copper, and aluminum scrap the declines began only this year, but in the case of lead and zinc they had set in during the spring months of 1952.

Prices of steel scrap, the latter utilized in varying proportions with pig iron in the production of steel ingots, twice since April has dipped and then risen. The price of No. 1 heavy melting scrap at Pittsburgh, a representative high grade scrap material, dropped from the ceiling price of $44 per gross ton in April to $39 in May. Subsequently, the price rebounded to over $45 per ton but in September again dropped sharply to reach a low of about $33 per ton in the first week of October. The decline, which coincided closely with the beginning of the Korean truce negotiations, reflected the uncertainty over the future rate of steel operations and some reduction in the rate of scrap purchases on the part of steel producers.

With the pickup in steel operations in October and some increase in the rate of scrap buying on the part of steel producers, scrap recovered to around $38 per ton in the last week of October. An additional strengthening factor was the relaxation of export controls early in October on all grades of iron and steel scrap.